

WHAT IS CLAIMED IS:

1. A trim fuse comprising:  
a semiconductor substrate;  
a stepped oxide region formed on a surface of said substrate;  
at least one thinned oxide region formed on said surface of said substrate and proximal said stepped oxide region; and  
an electrically blowable fuse material formed on said stepped oxide region and said at least one thinned oxide region to form at least one transition region between said stepped oxide region and said at least one thinned oxide region, wherein said fuse material reduces in thickness as it transitions from said at least one thinned oxide region to said stepped oxide region.
2. The trim fuse according to claim 1 wherein said fuse material reduces in thickness in no less than two dimensions as it transitions from said at least one thinned oxide region to said stepped oxide region.
3. The trim fuse according to claim 2 wherein said semiconductor substrate comprises silicon.
4. The trim fuse according to claim 3 wherein said fuse material comprises metal.
5. The trim fuse according to claim 4 wherein said metal comprises Al/Cu.
6. The trim fuse according to claim 3 wherein said fuse material comprises polycrystal silicon.
7. The trim fuse according to claim 1 wherein said stepped oxide region comprises a stepped field oxide.

8. A method of forming a trim fuse comprising the steps of:  
forming a stepped oxide region on a semiconductor substrate;  
forming at least one thinned oxide region on said semiconductor substrate and proximal said stepped oxide region; and  
depositing an electrically blowable fuse material on said stepped oxide region and said at least one thinned oxide region to form at least one transition region such that said fuse material changes in thickness as it transitions between said at least one thinned oxide region and said stepped oxide region.
9. The method according to claim 8 wherein said step of depositing an electrically blowable fuse material on said stepped oxide region and said at least one thinned oxide region comprises forming said at least one transition region such that said fuse material reduces in thickness as it transitions from said at least one thinned oxide region to said stepped oxide region.
10. A trim fuse comprising:  
a semiconductor substrate;  
a field oxide stepped region formed on a surface of said substrate;  
a plurality of thinned oxide regions formed on said surface of said substrate and proximal said field oxide stepped region; and  
a fuse material deposited on said field oxide stepped region and said plurality of thinned oxide regions to form a plurality of transition regions between said field oxide stepped region and said plurality of thinned oxide regions, wherein said fuse material reduces in thickness as it transitions from said plurality of thinned oxide regions to said field oxide stepped region.
11. The trim fuse according to claim 10 wherein said fuse material comprises metal.
12. The trim fuse according to claim 11 wherein said metal comprises Al/Cu.

13. The trim fuse according to claim 10 wherein said fuse material comprises polycrystal silicon.
14. The trim fuse according to claim 10 wherein said semiconductor substrate comprises silicon.
15. The trim fuse according to claim 10 wherein said fuse material reduces in thickness in at least two directions as it transitions from said plurality of thinned oxide regions to said field oxide stepped region.